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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,242	12/15/1999	Bruce E. Flinchbaugh	TI-27768	8650
23494	7590	05/10/2004	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			VU, NGOC YEN T	
		ART UNIT	PAPER NUMBER	
		2612		
DATE MAILED: 05/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/465,242	FLINCHBAUGH, BRUCE E.
	Examiner Ngoc-Yen T. Vu	Art Unit 2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 January 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 7 and 8 is/are allowed.
- 6) Claim(s) 1-6 and 9-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Response to Amendment

1. The amendments, filed on 01/26/2004, have been entered and made of record. Claims 1-20 are pending.

Response to Arguments

2. Applicant's arguments, see paper No. 6, filed 01/26/2004, with respect to the rejection(s) of claim(s) 1-6 and 8-20 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Potts et al. (US #6,593,956).

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-6, 11-13, 15-17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Potts et al. (US #6,593,956 B1).

Regarding claim 1, Potts '956 teaches a method for operating a camera (Figs. 1 & 25), comprising the steps of:

responsive to an operator action and detecting information from a scene (Figs. 2-3, sound waves from a speaker are detected by audio source locator 28 and processing unit 20; see col. 6 line 16 – col. 7 line 22);

evaluating the detected information relative to a human facial characteristic (Figs. 3-4, video face location results) and a specified criteria (Fig. 5, flesh tone color detection) (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15);

continuing the detecting and evaluating steps (col. 7 lines 32-54); and

responsive to the evaluating step determining that the information from the scene includes information that is representative of a human facial characteristic and that satisfies a specified criteria (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65); and

recording an image of the scene (col. 7 lines 45-48).

As to claim 2, Potts teaches that said detecting step includes the step of detecting an image of radiation from the scene which includes the information representative of a facial characteristic (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65).

As to claim 3, Potts teaches that said evaluating step includes the steps of identifying in the image of radiation at least one pattern representative of a face, and evaluating the pattern relative to the specified criteria (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65).

As to claim 4, Potts teaches that the specified criteria includes a size limit criteria, and wherein said evaluating step includes the step of rejecting each identified pattern which is representative of a face but which fails to satisfy the size limit criteria (col. 10 lines 7-52; col. 21 line 57 – col. 22 line 45).

As to claim 5, Potts teaches said evaluating step includes the steps of identifying in the image of radiation a plurality of patterns each representative of a respective face, and evaluating each such detected pattern relative to the specified criteria (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65).

As to claim 6, Potts teaches that said evaluating step includes the steps of identifying in the image of radiation a plurality of patterns each representative of a respective face, thereafter using a further criteria to select a subset of the patterns, and then evaluating only the selected patterns in the subset relative to the specified criteria (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62; col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65).

As to claim 11, Potts teaches that the specified criteria is whether a face is oriented toward the camera (col. 2 lines 18-30), and wherein said evaluating step includes the steps of identifying at least one face in the information from the scene, and analyzing whether each such identified face is oriented to face substantially toward the camera (col. 12 lines 13 – col. 13 line 47; col. 20 lines 26-58; col. 21 line 15-56; col. 22 lines 16+).

As to claim 12, Potts teaches that said detecting step includes the step of detecting audible sound from the scene, the information representative of the facial characteristic being embodied in the detected audible sound (Figs. 2 and 3, audio source locator 28; col. 7 line 32 – col. 8 line 49).

As to claim 13 Potts teaches that said evaluating step includes the step of determining whether the detected audible sound is representative of a predetermined word (col. 18 line 54 – col. 19 line 10).

Regarding claim 15, Potts teaches a camera (Figs. 1 and 25), comprising:

an operator actuatable element (microphone array 12);
an image detector (camera 14);
a memory for storing digital images (col. 7 lines 45-49);
a control circuit, coupled to the operator actuatable element and to the image detector,
and comprising:

a memory for storing digital images (col. 7 lines 45-49); and
a processor, for controlling the image detector to detect information from a scene
responsive to operator actuation of the element, and for evaluating the detected
information relative to a human facial characteristic and a specified criteria, and for
responsive to the evaluating step determining that the information from the scene
includes information that is representative of a human facial characteristic and that
satisfies a specified criteria (col. 7 line 55 – col. 8 line 49; col. 9 line 3 – col. 10 line 62;
col. 12 line 13 – col. 13 line 15; col. 17 line 34 – col. 19 line 65); and
recording an image of the scene in the memory (col. 7 lines 45-49).

As to claim 16, Potts teaches that said image detector detects an image of radiation from
the scene (col. 6 lines 16-43).

As to claim 17, Potts teaches a microphone (Figs. 1 and 25, microphone array 12),
coupled to the control circuit, for detecting audible sounds from the scene.

As to claim 20, Potts teaches that the specified criteria is whether a face associated with
the facial characteristic is oriented to face substantially toward the camera (col. 2 lines 18-30;
col. 12 lines 13 – col. 13 line 47; col. 20 lines 26-58; col. 21 line 15-56; col. 22 lines 16+).

Claim Rejections - 35 USC § 103

5. Claims 9-10 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts '956 in view of Maurer (US #6,272,231 B1).

As to claims 9 and 10, the claims differs from Potts in that they further require that the specified criteria is whether an eye is open or a mouth is closed, and wherein said evaluating step includes the steps of identifying at least one eye or one mouth in the information from the scene, and analyzing whether each such identified eye is open or mouth is closed. However, the limitations are well known in the art as shown in Maurer '231. In the same field of endeavor, Maurer '231 teaches an apparatus for sensing a person's facial movements, features or characteristics comprising detecting and evaluating a person's face and corresponding facial features (col. 3 lines 13-53). Maurer '231 also teaches that the apparatus evaluates whether an eye is open or a mouth is closed (See Figs. 13-15; col. 11 lines 20-45). In light of the teaching from Maurer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the digital camera taught in Potts by having evaluating a human facial characteristic which satisfies the specified criteria whether an eye is open or a mouth is closed so as to implement the digital camera with a convenient and efficient facial feature sensing.

As to claim 18, see the Examiner's comments in the rejection of claim 9.

As to claim 19, see the Examiner's comments in the rejection of claim 10.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Potts '956 in view of Sakamoto et al. (US #5,561,796).

As to claim 14, the claim differs from Potts in that they further require that said evaluating step includes the step of determining whether the detected audible sound is representative of laughter. However, it is well known in the art to search or to evaluate whether a detected audible sound is representative of a predetermined word or laughter, as taught in Sakamoto '796 (see col. 5 lines 10-64; col. 9 line 60 – col. 10 line 39). In light of the teaching in Sakamoto, it would have been obvious to one of ordinary skill in the art to modify the digital camera taught in Potts by determining whether the detected audible sound is a predetermined word or laughter so as to precisely determine lip motion of a person's facial movements.

Allowable Subject Matter

7. Claims 7-8 are allowed.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen T. Vu whose telephone number is 703-305-4946. The examiner can normally be reached on Mon. – Fri. from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NGOC-YEN VU
PRIMARY EXAMINER
Art Unit 2612